

## What is Claimed is

1. An automatically cleaned filter with cotton core, comprising an outer case, a cotton core and a pump, said outer case comprises a lid that can be opened to put the cotton core therein, wherein the outer case has a water inlet and one or  
5 more water outlets, said outer case further comprises an cleaning apparatus that can be operated like a washing machine to clean its cotton core inside and is connected with a motor outside the outer case.

2. The automatically cleaned filter with cotton core according to claim 1,  
10 wherein the said cleaning apparatus is a cylinder that is installed inside the outer case, the cylinder has cotton core therein and has many filtering holes on its side wall, the said cylinder is connected with a motor at the rear side of the outer case, the said outer case comprises a water inlet and one water outlet connected with a pump, said pump is connected with a splitter at its water outlet.

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3. The automatically cleaned filter with cotton core according to claim 2, wherein a secondary screening unit is set at the outlet of the splitter, and active carbon is provided in the secondary screening.

20 4. The automatically cleaned filter with cotton core according to claim 1, wherein the cleaning apparatus is an agitator mounted in the outer case which is connected with the motor at the rear side of the outer case, said outer case has one water inlet and two water outlets, and is connected with fish jar or rearing pond at one of its outlets via pump and piping, and is connected with the outside  
25 sewage pipe at another outlet via piping, and there is a switch valve on the pipe connected with the outside sewage pipe.

5. The automatically cleaned filter with cotton core according to claim 4, wherein the outer case is connected at its one outlet with a secondary filter in which the active carbon is provided, said secondary active filter is connected with said pump.

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6. The automatically cleaned filter with cotton core according to claim 4, wherein the agitator is of fan-blade type.

7. The automatically cleaned filter with cotton core according to claim 1,  
10 wherein the cleaning apparatus is an agitator installed inside the outer case which is connected with the motor at the front side of the outer case, the outer case has one water inlet and one outlet, one pump is installed at the inlet, one secondary screening unit or sewage pipe as well as one switch valve are provided at the outlet.

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8. The automatically cleaned filter with cotton core according to claim 1, wherein the cleaning apparatus is an agitator installed inside the outer case which is connected with the motor at bottom of the outer case, the outer case has one water inlet and one outlet at its bottom, one water outlet is provided at its top,  
20 one pump is provided at its water inlet and one switch valve is provided at water outlet of its bottom, as well as one secondary filter is provided at the outlet of the top, said secondary filter has active carbon inside.

9. The automatically cleaned filter with cotton core according to claim 1,  
25 wherein the cleaning apparatus is an agitator installed inside the outer case which is connected with the motor at the upper side of the outer case, the outer case has one water inlet and one outlet at its top, one pump is provided at its

water inlet, one splitter is provided at said water outlet, as well as one secondary filter is provided at the bottom, said secondary filter has active carbon inside.

10. The automatically cleaned filter with cotton core according to claim 8 or 9,  
5 wherein there is a filter screen between active carbon and cotton core.

11. The automatically cleaned filter with cotton core according to claim 1 or 2,  
wherein a removable lid is provided on said cylinder or the cylinder is closed.

10 12. The automatically cleaned filter with cotton core according to claim 1,  
wherein the cotton core can be made of one of the cotton, cloth, mesh, filter foam  
rubber, or filter screen or filter line that is used for the air conditioner.

13. The automatically cleaned filter with cotton core according to claim 1 or  
15 12, wherein said cotton core can be made in bag shape, in which the active  
carbon or the cotton core into which the active carbon is added is provided.

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